Figure 1

Regions altered in NB	Copy number change	SNPs
1p36.3	Single-copy loss	56
2p24	Amplification	50
3p14.3-p25.3	Single-copy loss	50
9p21	Single-copy loss	50
11q23.3	Single-copy loss	50
14q32	Single-copy loss	50
16p12-p13	Single-copy loss	50
17q23-q25	Single-copy gain	50
Control regions		
7q22-q31	No change	20
11p15.5	No change	20
12p12-p13	No change	20
17p13	No change	20
	TOTAL	486

Figure 2

237B - D1S468

237T - D1S468

341B - D1S468

341T - D1S468

411B - D1S2660

411T - D1S2660

363B - D1S2660

363T - D1S2660

Figure 3

Multiplex PCR

dNTPs
primers

+ PCR clean-up

Multiplex SNP-IT
a two-color thermalcycled reaction

A

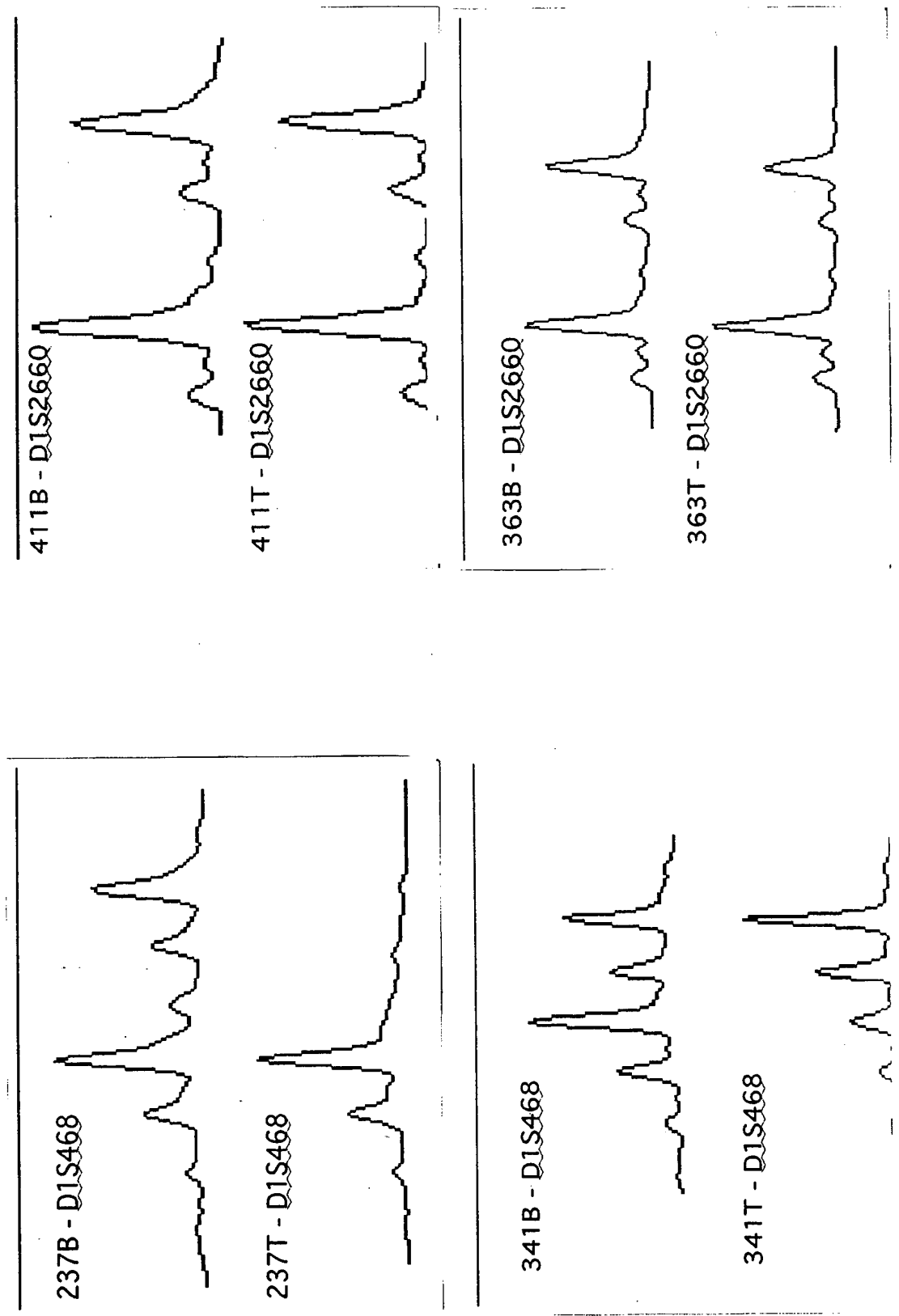SNP-IT primer

Template

SNP

T

C

G

SNP-IT primer

Template
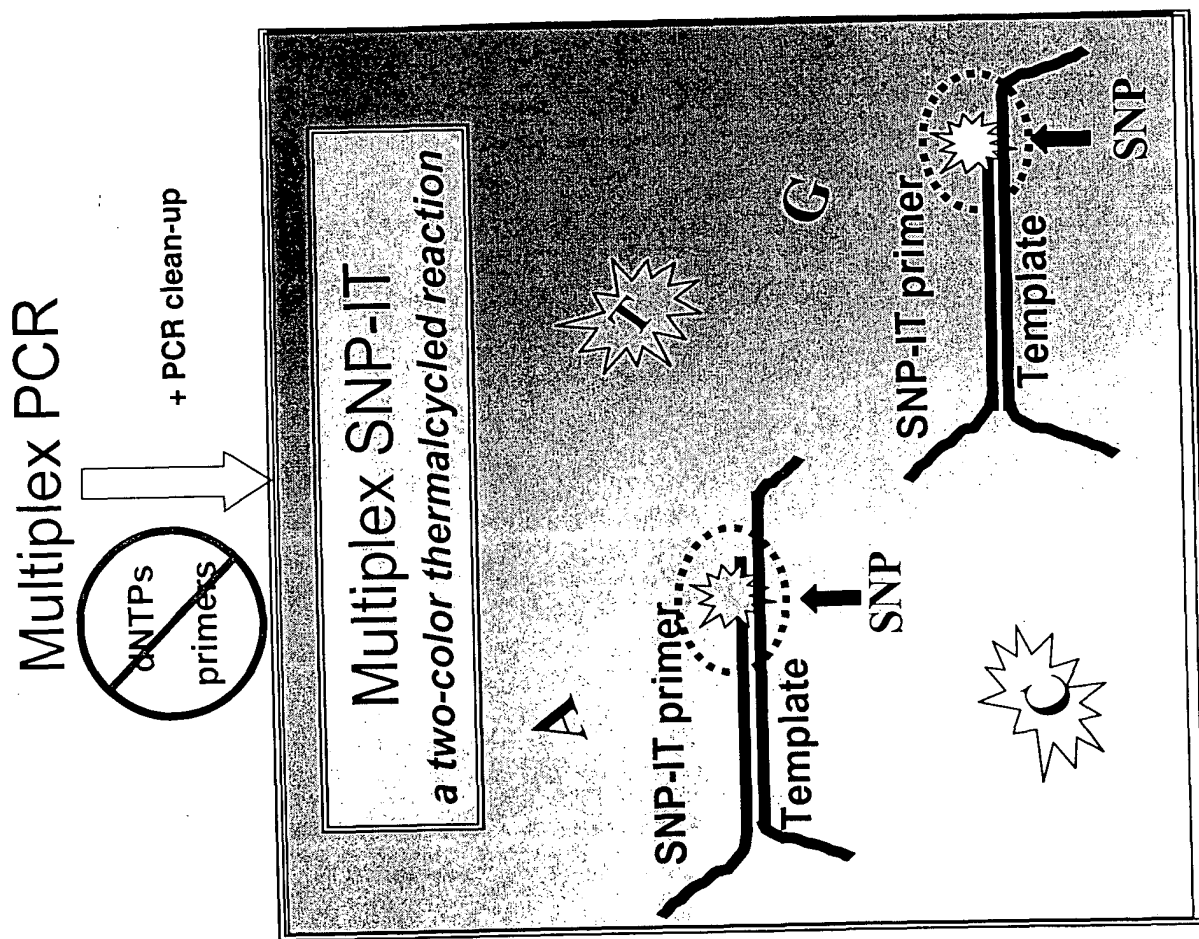
SNP

Multiplexing
- Typically 12-plex to 48-plex
- Efficient use of DNA samples
  - 0.17ng DNA/GT at 12-plex
  - ~ 80 pg DNA/GT at 24-plex
- Enables high-throughput

"All in one well"
- Original PCR plate can be the "home" for all biochemical steps
- Sequential rounds of reagent addition and thermocycling
- Facilitates automation

Figure 4

Multiplex PCR

+ PCR clean-up

~~dNTPs~~
~~primers~~

Multiplex SNP-IT
a two-color thermalcycled reaction

SNP-IT primer

Template

SNP

SNP-IT primer

Template

SNP

Hybridize to Array
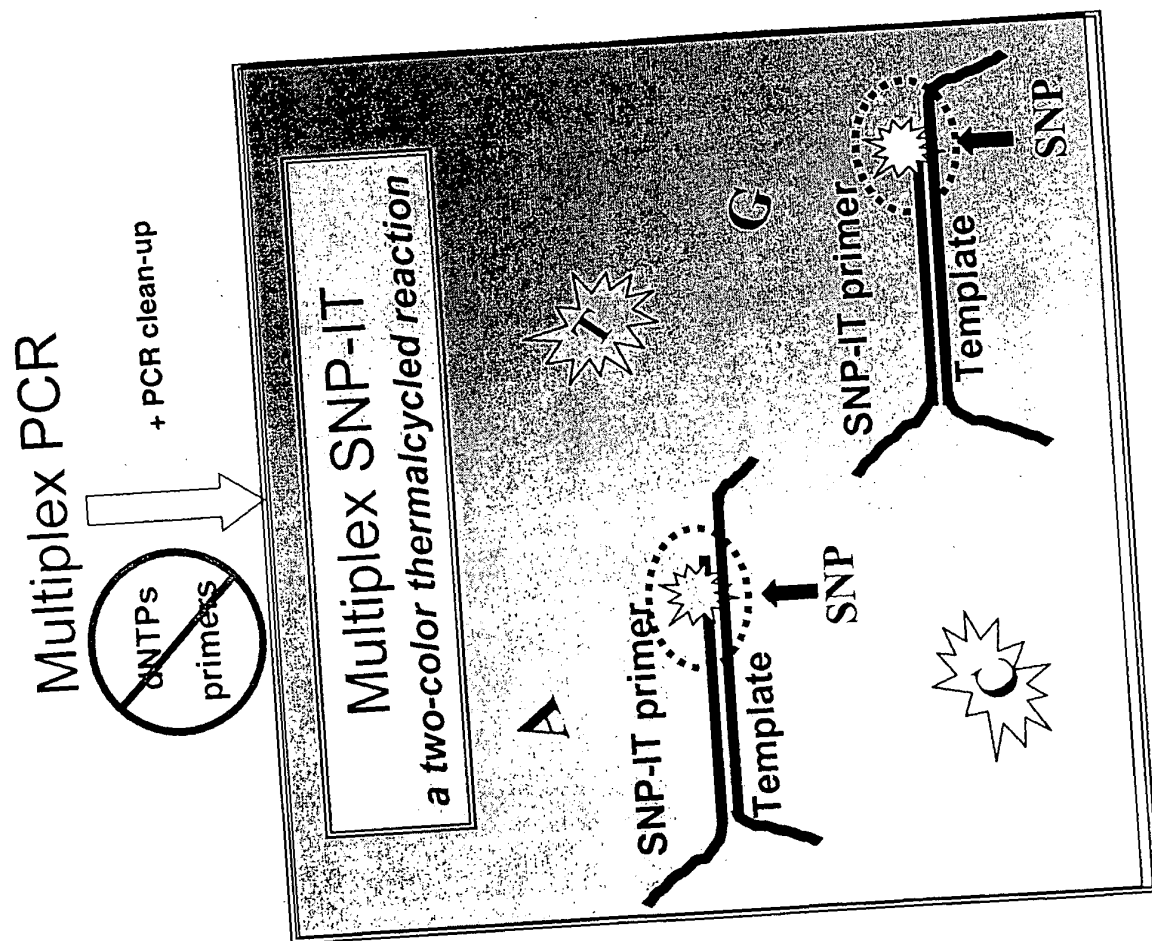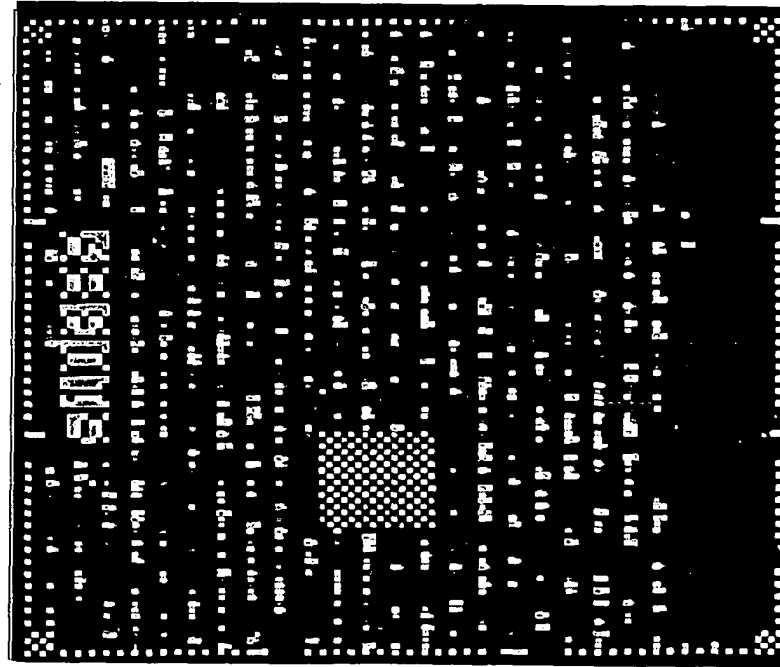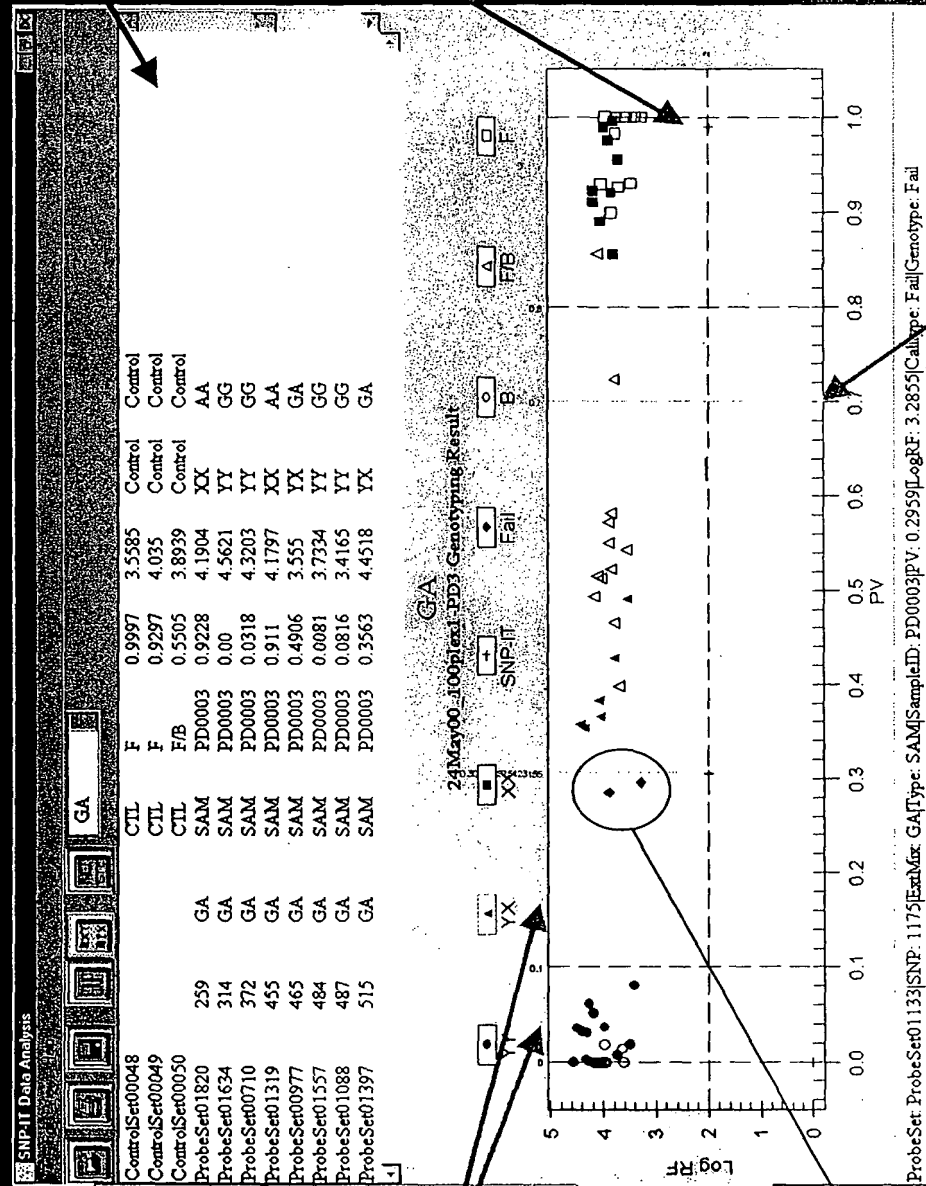Tags:
sort multiplexes into
"singlexes"

Figure 5

Orchid's proprietary SNP-IT assay
-Single-base primer extension

Affymetrix GenFlex™ arrays
-2000 20-mer tag sequences
-Balanced G/C content
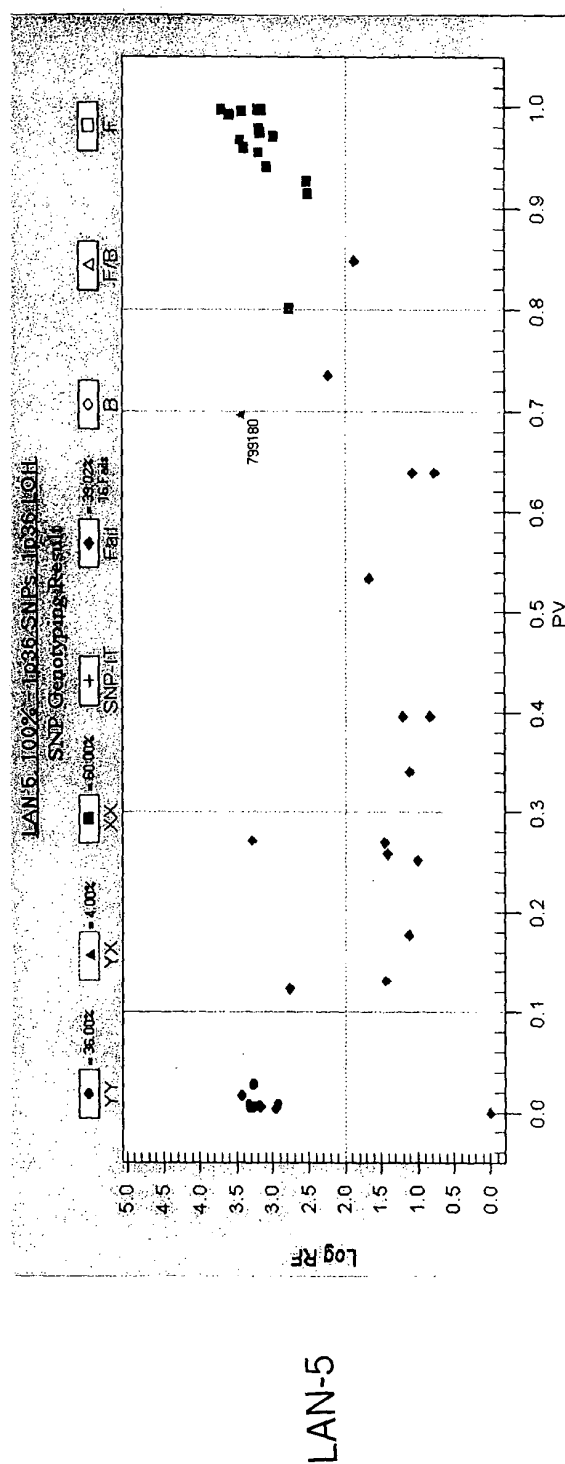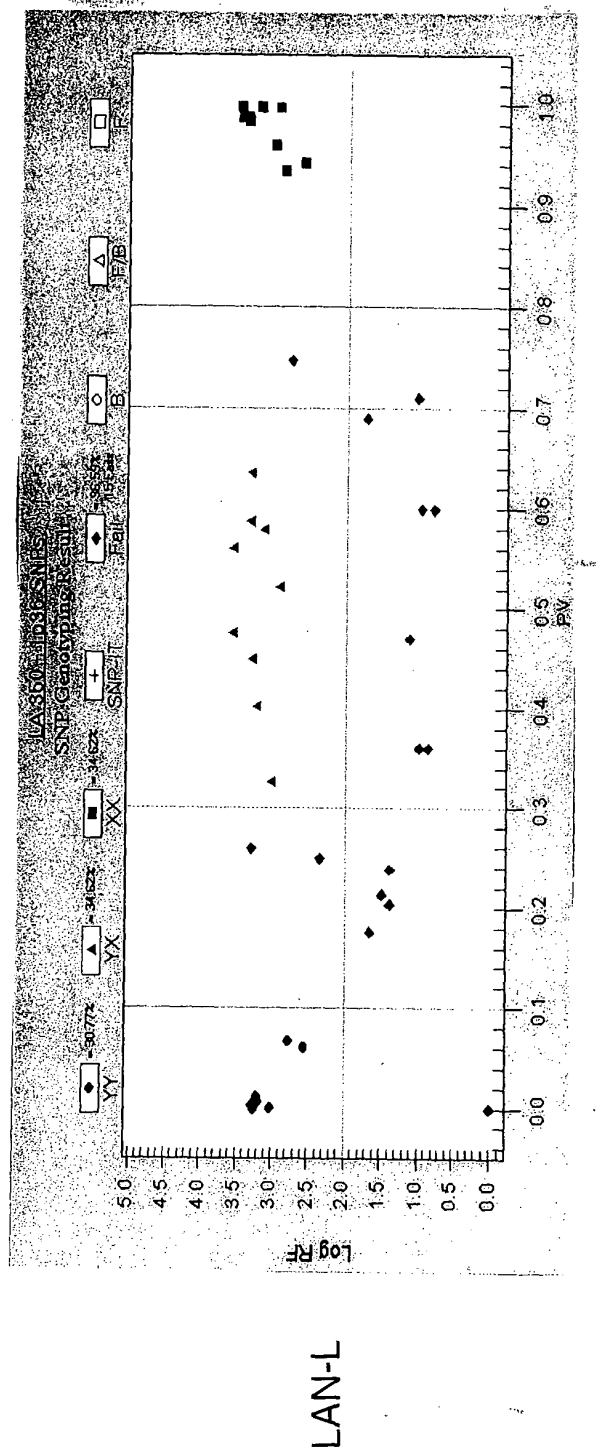-Generic chip design
-Assay flexibility

SNPcode typically run at 12-plex or 24-plex for PCR and SNP-IT

Routine use of up to 1824 tags simultaneously

Figure 6: Orchid Designed and Developed SNPcode Software

Output file (.txt) containing genotype calls

Log RF score must be greater than this line for a genotype call to be made. This cutoff can be adjusted by the user.

Data point specific data provided when the user clicks on a point of interest

Vertical lines define call clusters. These lines can be adjusted by the user. Genotypes in the output file are updated in real time.

Points that fall outside of the thresholds are not given genotype calls.

Figures 7A &7B

LAN-L

LAN-5

Figures 8A &8B

KCL

KCN

Figures 9A &9B

Figures 10A &10B

CHOP 341
Tumor 1p36
LOH

CHOP 341
Blood

Figure 11A

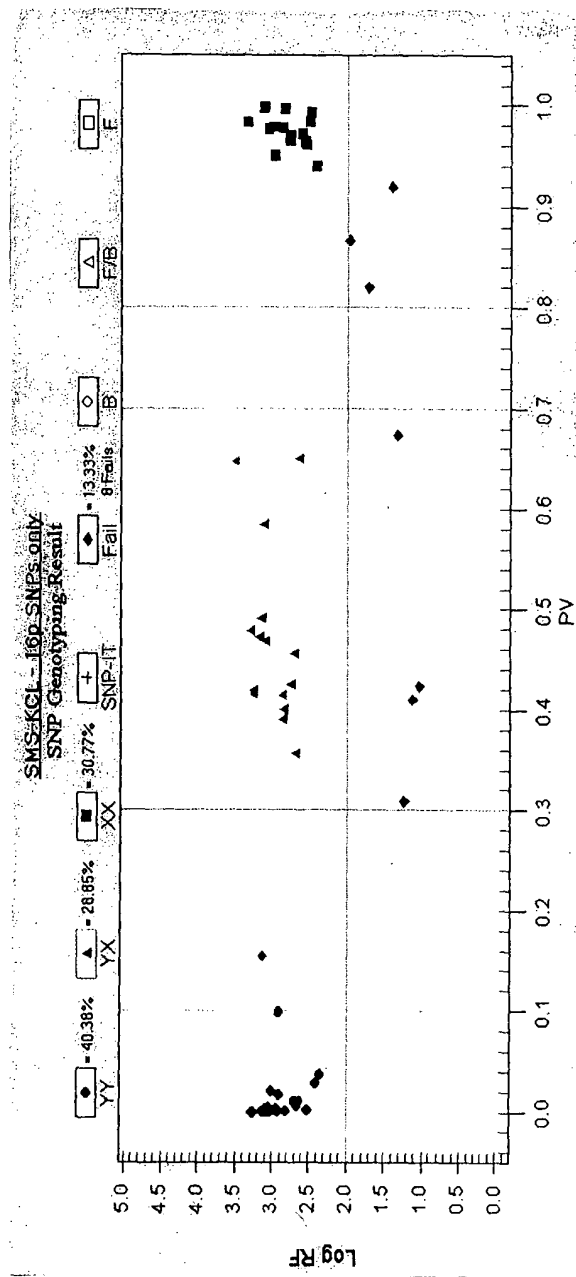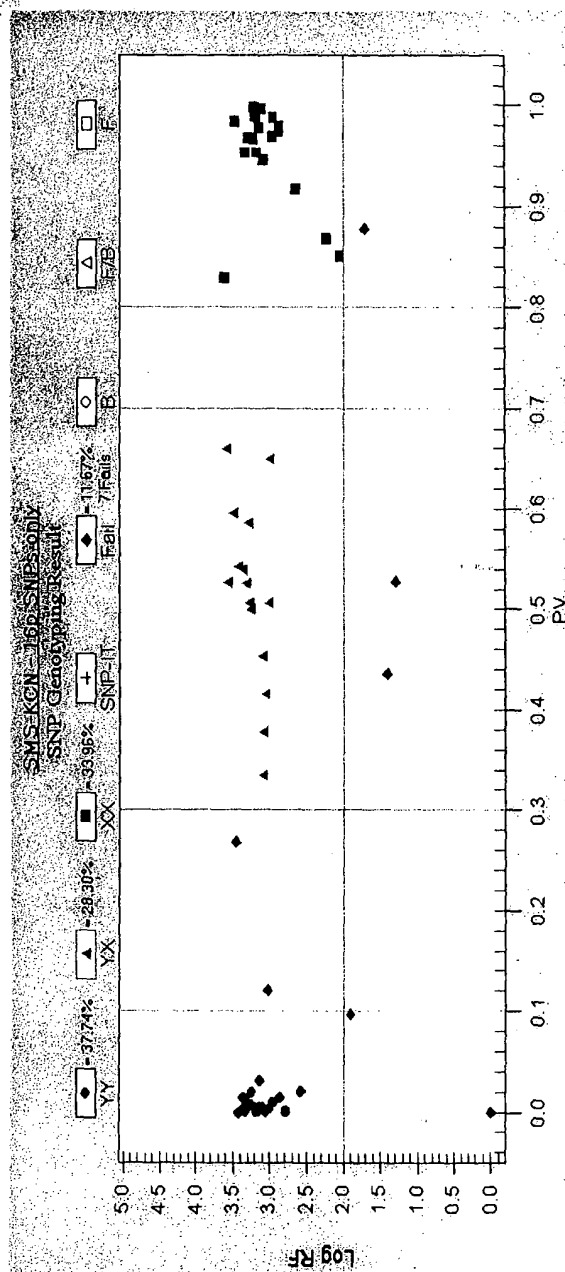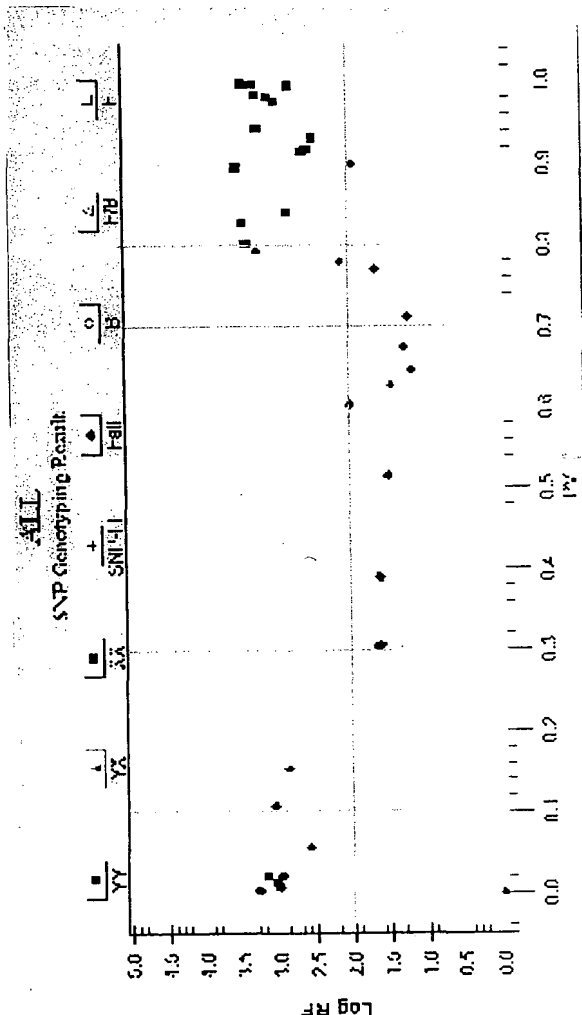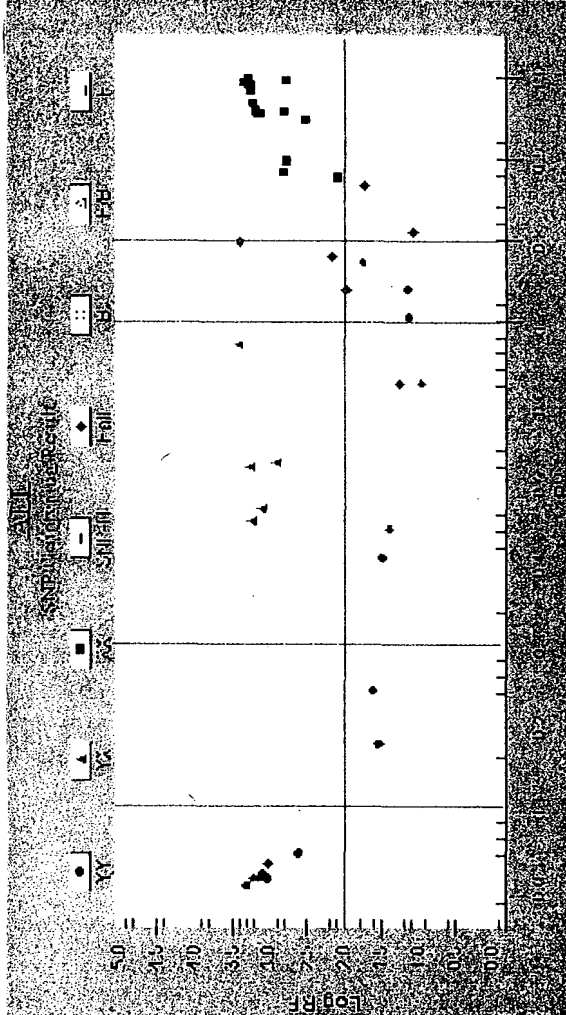| CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-IT primers - tagged with GenFlex tags
799057	GenFlex16p_1	GA	ATTTGATCGTAACTCGGGTGGACTTACCAACAAGCCATTCATTAT
799058	GenFlex16p_10	GA	TTTAGTCGTTTGCCCGAGGCCATGACAGGGCCCCAGCACACGGGC
799059	GenFlex16p_11	GA	CTTAACTATTAGCGTCGGTGAACCAGAACTGTTTCAGAGAATCT
799060	GenFlex16p_13	GA	CTATATCCTTACCGCGTATGTTCTAGACCAAGGTTGGTTATCCCC
799062	GenFlex16p_15	GA	TGTCTACCTTTCCGTCAAGATTTCTAATTGCAAAGTGACGCACA
799068	GenFlex16p_20	GA	AATACGCTGAATAGAGCCCTCCTTCTGGAGCTAAGCCTCTCAAAG
799070	GenFlex16p_22	GA	GACGATCCTTATACTGATGACTGGTCGCTACCTTACCTCAGCC
799072	GenFlex16p_24	GA	ATAAAGCTCTATACTCCGCGAGGAACTCTGAGAGCAATAACTGAT
799076	GenFlex16p_29	GA	ACTCCAGTGCCAAGTACGATGACTCTTTAGTTTGAATAACAAGC
799079	GenFlex16p_31	GA	CGCCAGAGTTATGTTGAGTGATTAGGGAGTCCGCATTCTTCCAG
799081	GenFlex16p_34	GA	TGCCCTATTGTTGCGTCGGACAAAAACAGCACCTGTTCTTAGACGC
799084	GenFlex16p_38	GA	TAATCTAATTCTGGTCGCGGTAGCTTGGATTTCTTCCTTTCAT
799085	GenFlex16p_39	GA	TATATTAGTTCTGACCGGCGCGGTGCTTGACAAGTTGCCTGGGGAT
799086	GenFlex16p_4	GA	TCGTATATTGGTGACTAGGCGGGTCTTATGTTGTTGTCTGGGGTGGG
799087	GenFlex16p_40	GA	TGTGATAATTTCGACGAGGACCGGGAGGCTTGGTCATTCTTTCTTC
799137	GenFlex16p_42	GA	CTTTCAAGTACCTTAGCTCGTTATCCTGGCCAAGATAGTCTGTCAT
799089	GenFlex16p_44	CT	GTGATTAAGTCTGCTTCGGCCTCGCTTAGAATTCAGGCAAAGGTT
799091	GenFlex16p_46	GA	GTGCGTAGTTCTGTCATAGCACAGCCTTGGCTCTTGCATGTAGAG
799092	GenFlex16p_47	CT	GTCGAGGGATTCTGAACCTGTATTCAGTGATCCTGCGGTATTATT
799093	GenFlex16p_48	GA	CCATAGTATCCTGTAAGCGTTGTCTTTTCTGGAAGCGGTAAGA
799094	GenFlex16p_5	CT	CCAATGTACCTATATCGTGGTGGAGAGGATCATGGTGGCCTGGAC
799095	GenFlex16p_50	GA	ACACAAAGTCGATACGTCCGCAGTGATTGGATGCCGTGCAGAAAG
799096	GenFlex16p_51	GA	ATTAAGCGACGTTGGTCTAGGGTCTCATGTGATGGTCTGGGGCCT
799097	GenFlex16p_52	GA	TATTAAGGTTGTACCCTCGGACTTTGTCTGGAGTATTCATGCCAT
799098	GenFlex16p_53	GA	GTAACGAATTATACCCTCGGGACTGTACCTCCCCAGTGGGGGAC
799100	GenFlex16p_55	GA	CTAACGAATCTGGGACGTGCGAGGGAGACTCTGTTTCGCCTTTC
799138	GenFlex16p_56	CT	CGTTCCTAAAGCTGAGTCTGGCTACAGCCACAGGGAAGTTTCACA
799101	GenFlex16p_57	GA	CTAAGTAATCTGGTCCGGCGAACATTACAGCAAAGTCACATCTTAT
799103	GenFlex16p_59	GA	GGACGCGCTTGACCGGACTTATGACAGAAGTGACAGCAGGAGACGCC
799105	GenFlex16p_60	GA	GGATGGCGTTCCGTCCTATTACAAGCGTGGGCTGCAGGGTCTCCC
799106	GenFlex16p_61	GA	GGATACTATTCCGTGCGTGTCACGTGATGAAGTATCACCCTGGCT
799108	GenFlex16p_63	CT	GCTAACAGTTCCGTCAGTCGTCACTATGAGGCGTGTGAAGTTTGCAGCTGTTT
799139	GenFlex16p_65	GA	GTTTCTTATTAGCGAGGAGCCAGAAGGGATTATCCTCAGCCAGTC
799110	GenFlex16p_66	GA	CTATCAGGTTACGATGACTGGGCATCTTAAGAAGCTTCGACGCTC
799111	GenFlex16p_67	CT	CTAAGCCATTACGCGACATTACGAAGCAGAAGTTCAGATTGCCCA

Figure 11B

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-IT primers - tagged with GenFlex tags
799112	GenFlex16p_69	CT	CTGCAAAGTTACGTCGCATTCTGAAAGCCCATGTGTTGCTCATT
799113	GenFlex16p_7	GA	CTCTCACGTTACGGCTGATTCTAAAGAAAAGTGTACAAATACTCA
799114	GenFlex16p_70	GA	CTCTAGGCTTACGCGCATGATTCAGGATTTTGGCCGAGTCCCAT
799115	GenFlex16p_71	CT	GCTCTAGGTTCCGGGTACTAAGCAAGATGTGGTCTCCTGTGTGTA
799116	GenFlex16p_72	GA	TCGAACGTGTCATTGGTACTGCCCACGATAAACCAAAACTCACC
799118	GenFlex16p_74	CT	ATAGACTAGCCTGCCGGTCAACTCTCCCTCTACCCAGCTCTGA
799141	GenFlex16p_76	GA	AATATCGTAAGACATCCGCGGAATCGAAGTACTGATACGGGGGAGC
799121	GenFlex16p_79	GA	AACAGTCTAACCTACGCGAGTCTGGATCGGCCAAGCACCGGGGAG
799122	GenFlex16p_8	GA	ATACGTCTTACCGCACATAGGCTCCTAGAAATGCTCTGCTGCTCC
799123	GenFlex16p_80	CT	GTAACCTATTCGTGACTAGCACCACCTCCCAGGAAACAGTTCTGA
799125	GenFlex16p_82	GA	GAGTATCTTACCTGGTCTAGGAGAAAGCTGGCCTCTTTGGGGAGT
799126	GenFlex16p_83	CT	GTATCTAATTCGTGAGTCGGAACATTAGGCATATCACTGTTTT
799127	GenFlex16p_84	CT	GTACTACATTCGTGCGATGGAGATTCAAAAAACAGTAGGCAGAGT
799130	GenFlex16p_87	GA	ATGTATCCGAAGTCGTAGTGGTTGGTCAGCTGGGTGACTCTGCACCAG
799132	GenFlex16p_89	GA	ATTTGACGAACGTATGCCGCGCGGGGAGTCCAGCGTTGACAGAGC
799134	GenFlex16p_91	GA	AAATTCGCCACCTAGATCGAGCTCACCAATGGTCACGTGTTCA
799135	GenFlex16p_92	CT	AATTATCGGAACTCGTCGCTGAAGGTTGGCAGGCCAGGGACAACA
799136	GenFlex16p_94	CT	TATTTACGAACCTTGGGAGCCTTCCAAGATCTTTCTTGACAAAC
799142	GenFlex1p36_1	CT	AGCGACTGTAAACTAATCGGGGTTTATGTCTCTGAGCGAGCAGAGA
799143	GenFlex1p36_10	GA	GGAACTTATTATAGAGCCGGCTGTCTAAAGGCAGGCAGGGGTGAG
799144	GenFlex1p36_15	GA	TCCAGGTCTTAACGACGTGGGTCACTGAGTGCTGCTTCCTAAAG
799145	GenFlex1p36_18	GA	TCGAGTCCTTTAAGATCGCTACTATTTCCCAATGGGTCTGAGTT
799146	GenFlex1p36_2	CT	TCGATACGTTTAATCTCCGCAAAGCCCCTCCTTTCACTCTGTGT
799147	GenFlex1p36_20	GA	CCATCCGATTAAATACCGTGGGAGCCCCCCTGCCCTGTAGCTCTC
799148	GenFlex1p36_3	GA	GATTACGTTAAGTTACGGCGCGCCAAGAAAGCCCTGCCCAGCTCTTT
799149	GenFlex1p36_31	CT	GTTGACCGTTAGTTATGCGATTCCTCTGTTATGTTCATACATTAG
799150	GenFlex1p36_35	GA	GGTTCGCTTACGTTGCATAGAACTGGAAGCATTGAGGGCTTCTGG
799151	GenFlex1p36_4	GA	CGTATCGCTTAACCTCTATGGGCAGGAAAGCCGGTTTCCAGAGTC
799152	GenFlex1p36_41	GA	CGTACAGCTTACCTACTACTATGCCTTCTGGTCATACACATCATTA
799153	GenFlex1p36_56	GA	CGTGCAAGTTACCGAGCTGATGGCTGCTGAGTTTACTGAGGT
799154	GenFlex1p36_57	CT	CGTCGCGTTAGACAGCTCATGGTGGTCAGTAAAGAGATAAAGGA
799155	GenFlex1p36_58	GA	TCGTCACGTTAGGACTAGTGTCCATGGTTGTTTCCAAACAGTG
799156	GenFlex1p36_60	GA	TCGAAGCGTTTAGACCCATCTGGCACATCTGGAAATGAAGATTG
799157	GenFlex1p36_62	GA	TCGGACGCTTTAGATGACTTCAAAAACAATGTCTTCCTGTTCCCC
799158	GenFlex1p36_64	GA	CGTCTAGCTTAATACCTCTGTGCCTGGCCTTAGGTGCCAC

Figure 11C

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-IT primers - tagged with GenFlex tags
799159	GenFlex1p36_66	GA	CGTCTCAGTTAATAGTAGTACGGGATTCAATAAAATAACATGGCTAAA
799160	GenFlex1p36_69	GA	GCAATCCGTTATGTAAAGGGAACACGCACGAGCAGCAGGAACA
799161	GenFlex1p36_72	GA	TGACCACGTTTCAGAAGCTGGAGGAAATCAACGAGATATTAGC
799162	GenFlex1p36_77	GA	CCATATACTTACACAGCAGGAAATCTGTGCCATGAAGTCGCACTT
799163	GenFlex1p36_87	GA	CTATCACGTTAGATCCACTGCTGTCATGGCCTCTCCCTGGACTGC
799164	GenFlex1p36_89	GA	CGTCACGTTACCTACATGATAAAGGCAGAGGCAAGGTCCTGTTTG
799165	GenFlex1p36_90	CT	CGATCCGATTACAGGCCGATCAGAGGCAAGGTCCTGTTTGGAGGA
799166	GenFlex1p36-11	GA	CCATCGGATTACACACGAGTTGAGGAAAGGGCCGCTTTGCTTTTG
799167	GenFlex1p36-16	GA	CCTGCACGTTAGAACACTGGTGGGGACAAACACCCGCATGCACAC
799168	GenFlex1p36-21	GA	CTCGCGGCTTAGATCAGCTTGGCAACGGTGGAAGAGGCCTAGAA
799169	GenFlex1p36-28	GA	CCCTCGCTGGAGATCGAATATGGAAGGAGAATAGTGGAGGGGTGC
799170	GenFlex1p36-29	GA	CGCCCAGCTTAGAGCGAATTCTCCACGAGTGACTGTGGGGAACAG
799171	GenFlex1p36-33	CT	GCGGGCGCGTTCGACATAATTCTGCAAGCGACCCGACCAATCTAC
799172	GenFlex1p36-5	GA	GCCGACGCGCTTCGACAGAATTACAGGCCTCCCAGGAGCTCACACTC
799173	GenFlex1p36-6	CT	GTAGGCGATTCTAGCCAATTACAAGATCTACATCGTGATGAACTA
799174	GenFlex1p36-63	GA	GCACGTCGTATTAGGTAGTCAGGACACTTAAATCCACAGAGTCAC
799175	GenFlex1p36-65	CT	ACTCTCGACCTAGCGTAAGGTCTGACCTTCAGGGTCCAACTACAG
799176	GenFlex1p36-68	CT	ATCCACGATCCTAGAGTCGGTGCCTACTCTCCCAACCCAAAA
799177	GenFlex1p36-79	GA	ATCCATAGTCCTAAGTCCGGTCCGCACAGCCGGTCATAAAGC
799178	GenFlex1p36-80	CT	ACGGGTCACTCAGCCATATAACTCAGCTCACGCATTATGTTA
799179	GenFlex1p36-84	GA	GTCGTTGCACCTAGTTGATAATCTGTGATATTCTCTGTCTTAGAC
799180	GenFlex1p36-86	GA	GTCGCCGATTCTAGTTATGGGCTGTTCCTGGACTGTCTGACCTAG
799181	GenFlex1p36-88	GA	CGTCGGATTAGACCGGATCAAATTAAGTGGGTGAACAATGTGACC
799182	GenFlex1p36-94	CT	CCCGGACATGGACGTTAAGTGAGTGAGATCAGTCCTACCATGCACCTAC

Figure 11D

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799057	GenFlex16p_1	GA	TGTTTATCCATGCCATAAATTTG	AAGCAGTGAATTGCTCAAACCA
799058	GenFlex16p_10	GA	ACGGACCCTGAGCACAGA	TGCATTTCACATAAGTGCATAATTAATACTA
799059	GenFlex16p_11	GA	TTTTGAAAGATAAGGGAAAGCACA	ATGTTTTACAACAAGCTGTGTCTCTG
799060	GenFlex16p_13	GA	TAATACCTAGTCACCAACAGTGACC	ACTAGACTCAGGACTCCATTTACAGC
799062	GenFlex16p_15	GA	TTCATGCGTATTTAACACATAATG	GAAACACAAAAACCACAGGACAA
799068	GenFlex16p_20	GA	TGGGCTGTGTAGGGGCAATAT	TTGAACCCAGGTTTCCAGC
799070	GenFlex16p_22	GA	CAAGGACACTGGGAATCTTG	ACGAGTGCCTTCTGGAAGCTA
799072	GenFlex16p_24	GA	ATTTGCGTTCTACACATTCATAGTGTT	ACTGTGCAGCCAGAGATGG
799076	GenFlex16p_29	GA	TATGCTAAAGATAACTAAGGCAAGGC	AGGAGGAGCTCAGAGTTGGACT
799079	GenFlex16p_31	GA	GGGGTTCATTGTAGGTGAAC	AATCTATATTATCACCCTTCCCAC
799081	GenFlex16p_34	GA	TCTGAGAGCAGTCGACAGGAG	CAGACAGAGAAATAGCTACAAAACAGC
799084	GenFlex16p_38	GA	GAGGACAGCACTGCTGAGTG	ATGGCAGAGGCTGTGTGTG
799085	GenFlex16p_39	GA	ACCCTACAGTCCTTACCTTTCCAA	TTAAGGGGGCCTAAAAAGCTG
799086	GenFlex16p_4	GA	CATGGTCAAGGTCTGCATTCC	ATCTTCCTCACTGCCCTACTTG
799087	GenFlex16p_40	GA	AGCTGGCTGAGATCGAGG	CCCAGTAAGAGAAATCATACGAGAAG
799137	GenFlex16p_42	GA	CAGCAGACAGACACAGGTCC	TNNGCCTTGGCTCTCAGCC
799089	GenFlex16p_44	CT	AAAAATATGACTTTTTTCCCCC	TAATTTGGTTGCTATAGATTCCAAGTC
799091	GenFlex16p_46	GA	TATACACAATGCCTGCCTGACA	TTAGACACATGCTTAGAAGAAGATGCT
799092	GenFlex16p_47	CT	CCACTCCACAATAATCAGATTTTACAC	ATAAGTGGTCTCCCTGCTTATGG
799093	GenFlex16p_48	GA	TTTTTCACACATGGAGGGTG	AAAGGAATAAGGTCAAGACTTACATCC
799094	GenFlex16p_5	CT	AGGGCGATGCAGCAGAGAAT	TGCGCCCCTGCCCTTTTC
799095	GenFlex16p_50	GA	ATATTAGCATTATTAGCTGTACCTCACTTGT	TATATCTTATGTGCTTTGAACGGC
799096	GenFlex16p_51	GA	TGTTAATGTTGGTGTTGGCA	CCTTCCTCTGAATGATCAGGTCT
799097	GenFlex16p_52	GA	ATGACATCCAAGACAGTTCCTGT	TTTTGAGGTTTCTGGGGAAGG
799098	GenFlex16p_53	GA	TGGTGTTGAATGGCTGAATTG	AATCTCAGAATTCCAAGCCG
799100	GenFlex16p_55	GA	ACTAGGCAGTATTTTATGAGCCAGC	TGGCACACAAGTAAAAACTCCATAAATATT
799138	GenFlex16p_56	CT	AAGTTTGGTTTAACATCTGACTGGC	TAGGATAAATTGCCTGCCATG
799101	GenFlex16p_57	GA	GGGAAATTCGAGGGGATTTTTC	TTCAACCCCAAAAGGCAAA
799103	GenFlex16p_59	GA	TCCTCAATTTCCTTACAGTAGAACAT	AGGGGAATGTAATTACGGGAGGC
799105	GenFlex16p_60	GA	CCTTCCCCCAACTACCTGG	CTGTCCCAGAGGCCCTTG
799106	GenFlex16p_61	GA	TCTCTGGCGCTCAAGACAC	TGGCTTATGACATTCGCATTT
799108	GenFlex16p_63	CT	AAAGTGAGTGACAGTGGTGCTCT	AACTTTTCATGACAGAGACAGGGA
799139	GenFlex16p_65	GA	ATCTCATGACCTGTGGCATTG	TGGTCTCTTCTTCGTGGGAGTGATCTAA
799110	GenFlex16p_66	GA	TCAGACTGGCTGTATTAAATCGTT	AAAAGGAAAGTCATCCTGAGTCTTACT
799111	GenFlex16p_67	CT	AGAAAACGAAAACAGCAAGAGTAAATA	TTTTAATATACGGTAGTGACATTCTAGTAGATGA

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799112	GenFlex16p_69	CT	AAGAAGAAAGTATCCAAAACCTAGACAGA	CTATTTTGTTGTTCATCTTCTGAAAGC
799113	GenFlex16p_7	GA	TCACAGCAAAAGGACCAGATG	ACATTTGTAGAGAATGCCCTTTATATATGT
799114	GenFlex16p_70	GA	TTCCTTGTTTTAATGGAGACGCT	TTTTAGGGCACGAGACAAGG
799115	GenFlex16p_71	CT	TGCCAGGCAACCACTTAGTT	TGACCTCCCAGGTTCAATTAGC
799116	GenFlex16p_72	GA	GCATGACAGAGAAGGCACTT	TTAAAGCCTCATGGCTCTGG
799118	GenFlex16p_74	CT	ATGAACTTACAGAGCAAGATCGC	TCTCTGAGACCACTCAGCAACTC
799141	GenFlex16p_76	GA	TTTAAAATGTTCTTCAAAGACTAAACGC	ATTTAGAAATTGTAGCAAACACGTTGT
799121	GenFlex16p_79	GA	TTGTTTTGTCTTGAGGCACG	AAACTCTCACATCAGCATGACACT
799122	GenFlex16p_8	GA	ATGGGTTGCTTCACATTGG	AATGAACCAGGCAGGGAGAT
799123	GenFlex16p_80	CT	GTGTACGTGCGTGCACATATG	TGGGGTGTGGAGCCAAGA
799125	GenFlex16p_82	GA	ATTCAATGCTGGACTTTTTCAAG	ATTTGTAGTTCTTCTGAAACCTTCAGTT
799126	GenFlex16p_83	CT	TTTGGCTTGCTTTCCATATAACTTA	CAAACCCTCTAGGCTTCATTG
799127	GenFlex16p_84	CT	ACGGTGGGAGAATCTTAGGAATGTAA	ATGAAACCTCATAAAAGGAACGACT
799130	GenFlex16p_87	GA	TGCTGAGTAAACCCAAACTCTCA	TTCAGCCCATGTAGACTTGGTT
799132	GenFlex16p_89	GA	TTTGGGAAACTCCAGGTCAG	ATCAGGAACAGAGTGGTTACTGCA
799134	GenFlex16p_91	GA	AGTGGCTGGGAAAGAGGACTG	ACTTAGTTGGGGCCAGGC
799135	GenFlex16p_92	CT	CACTGCCCTAGAGACAGAGTTTG	AGAAGGACTGGCTGGGATG
799136	GenFlex16p_94	CT	AAAAGAAACTCAAGGTGAACCTGA	AATCGTTTGCTCGTTCTACTTTC
799142	GenFlex16p_1	CT	TCCACGGCTTCCCCCTTA	TTTGCCAAACGGCATTC
799143	GenFlex1p36_10	GA	ATCCCAGGACAGGGTCATG	AAACGAAAGTCTCCAGTGAGACG
799144	GenFlex1p36_15	GA	TCCCTTACCCAGATGTGAGGA	TCCCCCATCCAATTCACTGG
799145	GenFlex1p36_18	GA	GGAGGTGAGAACATAGCAGAGATAAT	GTTCACTAAGAGGCAGCGAATC
799146	GenFlex1p36_2	CT	TAATTCAGTGAGTGTGAGTCCTTGG	TGAGTATGTTTCTATCTCTTTGTCTAGAAA
799147	GenFlex1p36_20	GA	GGTCTGTGCAAACTCCCTCA	CCAACAACCTCTGGGTGG
799148	GenFlex1p36_3	GA	GCAGGAACATTTGGCCTGT	TTAGGGCATCCACTGTCCTG
799149	GenFlex1p36_31	CT	TGAATCCAAGCTCTTAACTTGCTACT	CAAGAACACATATATGAACGACGACCTTGG
799150	GenFlex1p36_35	GA	CAGGAACAGGAACGCAATG	GCATTTTCCAAATCAAGCTGAA
799151	GenFlex1p36_4	GA	ATTGGGTGTCTCAGAGGCATAAT	AAAAATAAAATCACAGGTGCTCAGG
799152	GenFlex1p36_41	GA	AGTATGTTAATTAGTTATACAATACCAAGGGG	ACTTAATATGCCTGCCTGTCATTC
799153	GenFlex1p36_56	GA	TCATCCTGCACTGTCAGGC	ACAGTAAGGGAGGAGTAGCAAGAAATC
799154	GenFlex1p36_57	CT	GCAGTAACTAGGTTTGCATCTGA	TGAATCAATGGGGTTGGGT
799155	GenFlex1p36_58	GA	TAACTAGGTTTGCATCTGATGGTG	TAGGTGAATCAATGGGGTTGG
799156	GenFlex1p36_60	GA	TAACAAAAGGGATCTCACACTTGGC	TGACAAGTAAACAAGATTTGGCAC
799157	GenFlex1p36_62	GA	AAGAAATGGAAGCATATGACTCTAAGC	AGTTGCTCAGCACTGTTTTATAATCTG
799158	GenFlex1p36_64	GA	CCCCGTAGAGTCAAAGCAC	TGAGGACGAATGGTTTTCTTTC

Figure 11F

CHOP MARKERIB	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799159	GenFlex1p36_66	GA	GATGGAGAAGCGATGTTTGC	ATTAGGAGACAATGACACTGACGTT
799160	GenFlex1p36_69	GA	TGGATGAGCAGTCAGAGAGTCTAC	CGTGCACACTCTCCAGTGG
799161	GenFlex1p36_72	GA	AATTCATCACCGATATTCTTGGG	GGCTCAAAGTAGGTTATCTAAATAAATGG
799162	GenFlex1p36_77	GA	ATTTGGGGTGACCAAGTCATG	ATAGCAACACTTGGACTCCGAA
799163	GenFlex1p36_87	GA	ACCAGTCCCCACACCCAC	TTTTTCTGGCCTGTGAGGG
799164	GenFlex1p36_89	GA	CCTGGGGACAGTTCAAGGG	TTAGTGGGACCCCTGGCTAT
799165	GenFlex1p36_90	CT	GACAGTTCAAGGGGCAAAG	AGCCACACTTAGTGGGACCC
799166	GenFlex1p36-11	GA	AATGTGGGAGGCACAGGAC	TGTTTTCAGAACCTGGAGAGG
799167	GenFlex1p36-16	GA	AGAACCTGTTCCACCTAAACCC	TCCTCATGGTGTTCTGTGCA
799168	GenFlex1p36-21	GA	ATCCAGAGAGAGGGCTTCAGAG	AAAACTTGCCTGTGATGTGTGG
799169	GenFlex1p36-28	GA	TGGTGGCAGTGGTTGGCTA	CCCAGCACACCTGCATGTA
799170	GenFlex1p36-29	GA	TAGATATGTCTGGGCATCGAGAA	ATACCATCATTTCACAGGGAAAC
799171	GenFlex1p36-33	CT	TTGTGAATCCCATATCCAGGAA	AAAATGTCTAGAATGAAATCTGTTCTCTG
799172	GenFlex1p36-5	GA	ATGTCTTGGAAATCATCTTTTCTTCT	AAATTCAGCCCAGCCATCC
799173	GenFlex1p36-6	CT	AGCTGGATCATCAGGGTCTTC	TGCAGGAGATTGTGGTGG
799174	GenFlex1p36-63	GA	TGCTGCATAAATTCTGCCAAT	ACCAATTTTTCTTGAGGTTCCCT
799175	GenFlex1p36-65	CT	ACGCAGGAAAAAGCCACAG	ATGTGTCCTCATGGAGAGGC
799176	GenFlex1p36-68	CT	TCTCACACAGCCTCAGAAGACC	AGCATAGGCGTGGCTTACTTACTTATTT
799177	GenFlex1p36-79	GA	GCAGCCTGGTTCAGAGACAA	GGGGAAGGCACCGTCACA
799178	GenFlex1p36-80	CT	TTGTGGGTGCGCCATCTA	TTGAATCCAGAGACACGGAAC
799179	GenFlex1p36-84	GA	AAGGTGGGAAAAGTGAAGCAA	ATGTCCACGTTGCATTCTGC
799180	GenFlex1p36-86	GA	TGGTTGATGCCCACTCCTAG	ATCCCGTCACTTGCCCTG
799181	GenFlex1p36-88	GA	ATGATGCCCTTCACTTGAGC	ACCGCACCCTCTGTGGAT
799182	GenFlex1p36-94	CT	AGCATCAGCACACTCAGCG	AGGGTGCTGGCAGTAGAGC

ORCHID MARKERID	CHOP ID	BASESDETECTED	dbSNPrs	TSC #
799142	1p36 = 1	CT	rs1004176	TSC0079519
799144	15	GA	rs1472486	TSC0391823
799145	18	GA	rs1515670	TSC0774121
799146	2	CT	rs1010583	TSC0090145
799147	20	GA	rs1556036	TSC0442272
799148	3	GA	rs1016389	TSC0098952
799150	35	GA	rs1891215	TSC0915396
799151	4	GA	rs1029322	TSC0254184
799152	41	GA	rs1936377	TSC1003239
799153	56	GA	rs242058	TSC0923457
799154	57	CT	rs351602	TSC0733700
799155	58	GA	rs351603	TSC0724196
799156	60	GA	rs391674	TSC0198179
799157	62	GA	rs521736	TSC0913003
799158	64	GA	rs534159	TSC0246348
799159	66	GA	rs648152	TSC0887128
799160	69	GA	rs709209	TSC0201877
799161	72	GA	rs731031	TSC0018751
799162	77	GA	rs763195	TSC0118468
799163	87	GA	rs903910	TSC0181570
799164	89	GA	rs925744	TSC0241630
799167	16	GA	rs1473499	TSC0393409
799169	28	GA	rs1883605	
799179	84	GA	rs874668	TSC0205214

MARKERID	SOURCEID	BASESDETECTED	dbSNPrs	Base # from T I
799057	16p-1	GA	rs765286	12052928
799077	3	CT	rs2541527	12401302
799086	4	GA	rs1097894	12603456
799113	7	GA	rs15379	13227352
799122	8	GA	rs2286974	13456164
799058	10	GA	rs889647	13855013
799059	11	GA	rs7102	14024351
799060	13	GA	rs33623	14323997
799062	15	GA	rs1704101	14645207
799065	18	CT	rs890893	14970181
799068	20	GA	rs1651007	15266253
799070	22	GA	rs1875383	15628534
799071	23	CT	rs6363	15835283
799072	24	GA	rs756983	16033731
799073	25	CT	rs916072	16130048
799074	27	CT	rs179600	16715550
799076	29	GA	rs2011209	17058052
799079	31	GA	rs1810125	17419561
799081	34	GA	rs2641824	17961654
799084	38	GA	rs881803	18821346
799085	39	GA	rs35628	19189473
799087	40	GA	rs371001	19385800
799089	44	CT	rs1010201	20692196
799093	48	GA	rs2100402	21759583
799095	50	GA	rs2270849	22564140
799096	51	GA	rs2352971	22749527
799097	52	GA	rs1156327	22929043
799098	53	GA	rs2301650	23279241
799100	55	GA	rs1557719	23617086
799138	56	CT	rs1925516	23763162
799101	57	GA	rs231932	24490442
799103	59	GA	rs2301620	24765609
799105	60	GA	rs2261412	24925504
799106	61	GA	rs741719	25122214
799108	63	CT	rs1469906	25475136
799139	65	GA	rs7764	26037466
799110	66	GA	rs1862648	26383143
799111	67	CT	rs194548	26836405
799112	69	CT	rs469430	27091470
799114	70	GA	rs294264	27381055
799115	71	CT	rs724466	27547487
799116	72	GA	rs250563	28173287
799118	74	CT	rs26763	28506212
799121	79	GA	rs960350	29339442
799123	80	CT	rs2033219	29685955
799125	82	GA	rs891122	30025271
799127	84	CT	rs1022454	30554318
799130	87	GA	rs982449	31292423
799132	89	GA	rs2188777	31664496
799134	91	GA	rs868440	32001379
799136	16p-94	CT	rs1017575	32938226